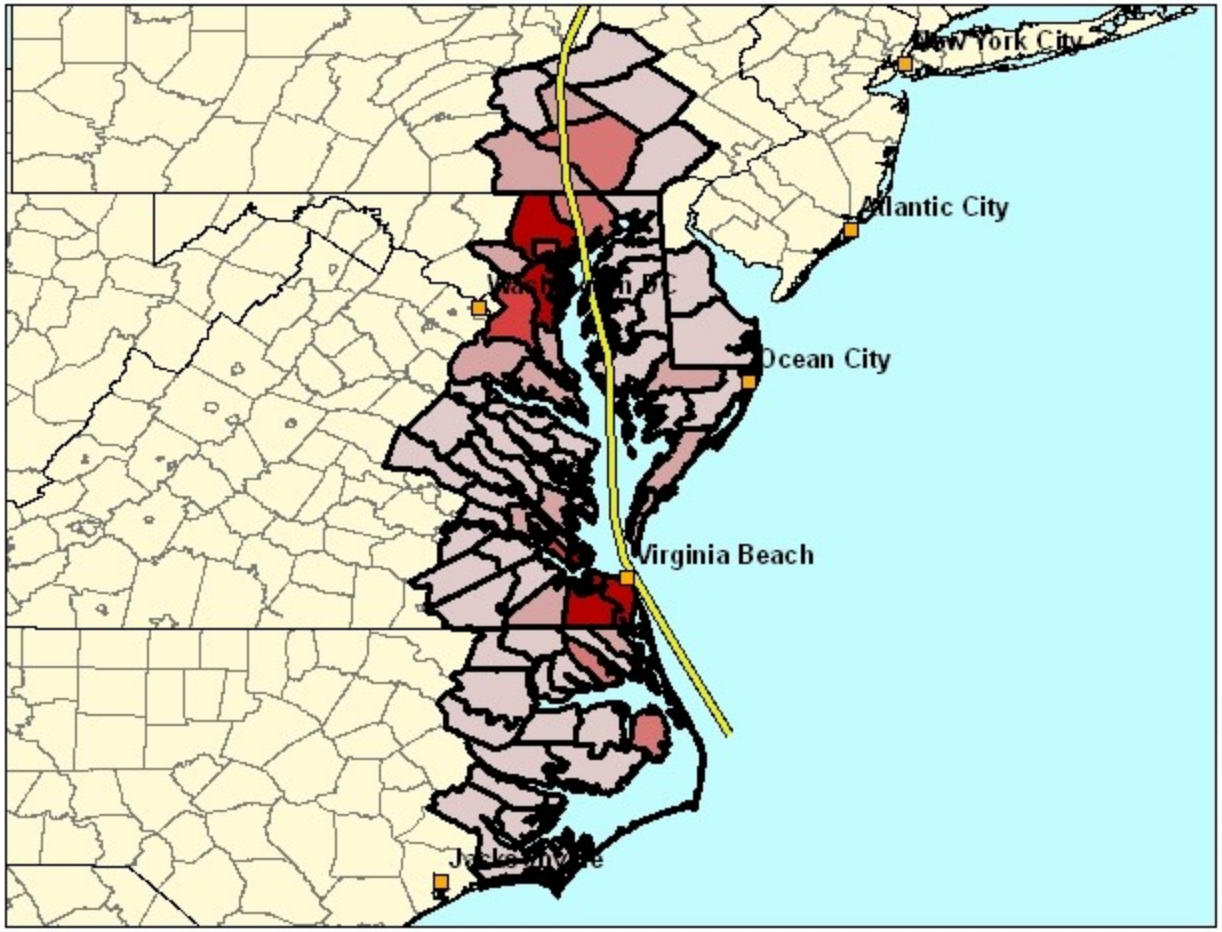
US Army Corps of Engineers

Hurricane Md#3 Debris Model

Landfall Plus About 12 Hours

For Official Use Only!



Post Landfall Debris Model Results

Virginia - 13,564,000 Yards
Maryland - 5,715,000 Yards
North Carolina - 1,174,000 Yards
Pennsylvania - 767,000 Yards
Delaware - 74,000 Yards

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC (1030 EDT 09/17/2007) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Debris Model	
Generated By: Siemsen, LRL 1100 EDT 09/17/2007	
Sources: HURREVAC LRL-DEBRIS	Page 1 of 13

US Army Corps of Engineers

Hurricane Md#3 Debris Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Yards per State	County	Yards per County
Delaware		Kent	2,000
		Sussex	72,000
Delaware	74,000		
Maryland		Anne Arundel	1,038,000
		Baltimore	1,362,000
		Baltimore City	936,000
		Calvert	193,000
		Caroline	34,000
		Cecil	46,000
		Charles	127,000
		Dorchester	83,000
		Harford	380,000
		Howard	243,000
		Kent	27,000
		Prince Georges	592,000
		Queen Annes	81,000
		Somerset	61,000
		St Marys	216,000
		Talbot	97,000
		Wicomico	121,000
		Worcester	78,000
Maryland	5,715,000		
North Carolina		Beaufort	25,000
		Bertie	22,000
		Camden	78,000
		Carteret	28,000
		Chowan	32,000
		Craven	5,000
		Currituck	208,000

State	Yards per State	County	Yards per County
North Carolina		Dare	326,000
(continued)		Gates	28,000
		Hertford	25,000
		Hyde	34,000
		Martin	3,000
		Pamlico	12,000
		Pasquotank	257,000
		Perquimans	35,000
		Tyrrell	27,000
		Washington	29,000
North Carolina	1,174,000		
Pennsylvania		Berks	2,000
		Chester	4,000
		Dauphin	23,000
		Lancaster	392,000
		Lebanon	121,000
		Schuylkil	< 1,000
		York	225,000
Pennsylvania	767,000		
Virginia		Accomack	223,000
		Caroline	< 1,000
		Charles City	5,000
		Chesapeake	1,756,000
		Essex	17,000
		Franklin City	12,000
		Gloucester	124,000
		Hampton City	1,263,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane Md#3 Debris Model

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Siemsen, LRL 1100 EDT 09/17/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Debris Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Yards per State	County	Yards per County
Virginia		Hanover	< 1,000
(continued)		Isle Of Wight	71,000
		James City	136,000
		King And Queen	16,000
		King George	3,000
		King William	13,000
		Lancaster	85,000
		Mathews	93,000
		Middlesex	62,000
		New Kent	16,000
		Newport News	704,000
		Norfolk City	2,181,000
		Northampton	116,000
		Northumberland	99,000
		Poquoson City	99,000
		Portsmouth	996,000
		Prince George	3,000
		Richmond	17,000
		Southampton	16,000
		Suffolk City	204,000
		Surry	15,000
		Sussex	8,000
		Virginia Beach	4,929,000
		Westmoreland	32,000
		Williamsburg	27,000
		York	223,000
Virginia	13,564,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane Md#3 Debris Model

Generated By:
Siemsen, LRL 1100 EDT 09/17/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Population Model

Landfall Plus About **12** Hours

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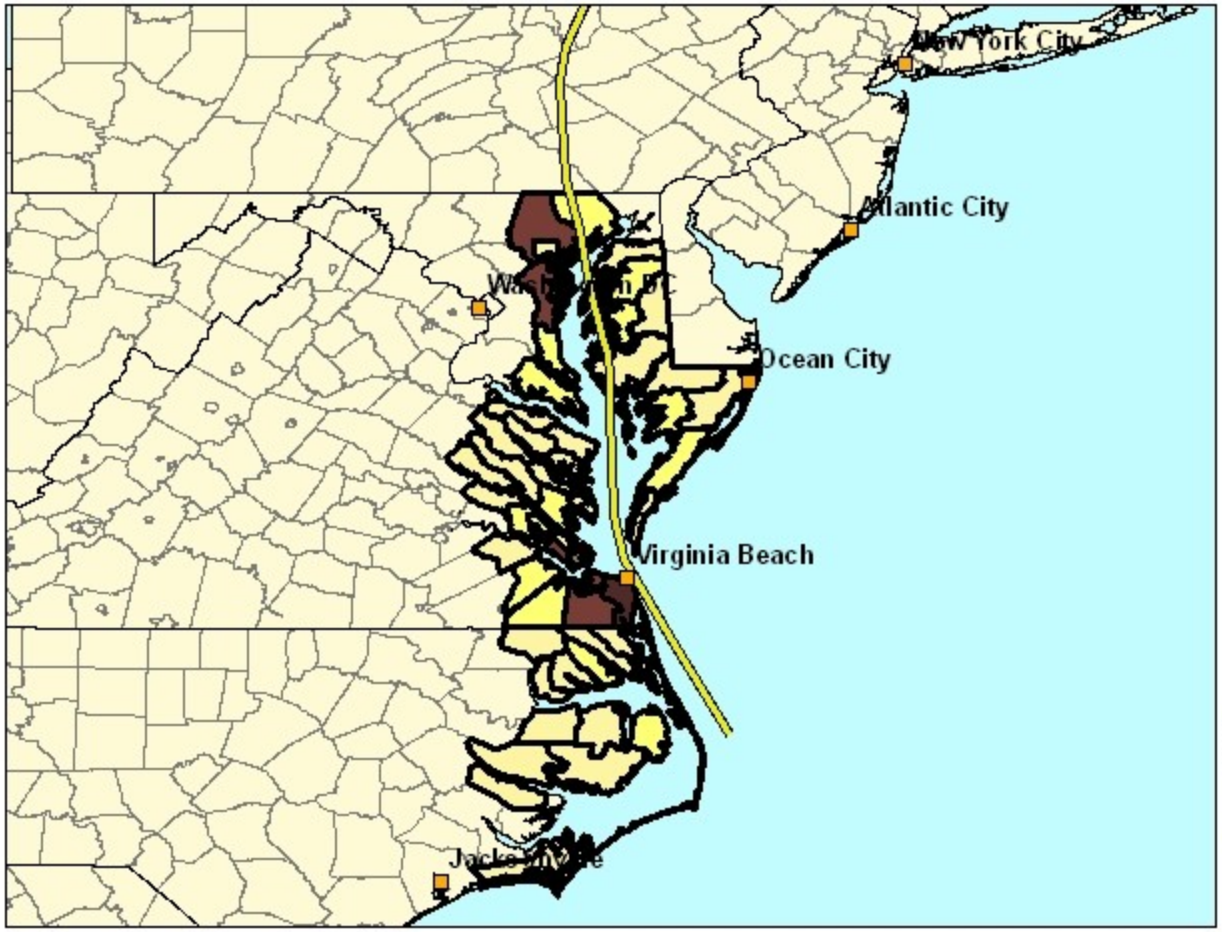


Post Landfall Population Model Results

Virginia - 1,711,000
Maryland - 737,000
North Carolina - 155,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC (1030 EDT 09/17/2007) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Population Model	
Generated By: Siemsen, LRL 1100 EDT 09/17/2007	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 13

US Army Corps of Engineers

Hurricane Md#3 Population Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Population per State	County	Population per County
Maryland		Anne Arundel	217,000
		Baltimore	182,000
		Baltimore City	< 1,000
		Calvert	69,000
		Caroline	< 1,000
		Dorchester	22,000
		Harford	69,000
		Kent	6,000
		Queen Annes	31,000
		Somerset	26,000
		St Marys	65,000
		Talbot	32,000
		Wicomico	7,000
		Worcester	11,000
Maryland	737,000		
North Carolina		Beaufort	< 1,000
		Camden	10,000
		Carteret	< 1,000
		Chowan	12,000
		Currituck	24,000
		Dare	34,000
		Gates	7,000
		Hyde	5,000
		Pasquotank	40,000
		Perquimans	13,000
		Tyrrell	5,000
		Washington	5,000
North Carolina	155,000		
Virginia		Accomack	40,000

State	Population per State	County	Population per County
Virginia		Chesapeake	221,000
(continued)		Essex	2,000
		Gloucester	39,000
		Hampton City	146,000
		Isle Of Wight	28,000
		James City	43,000
		King And Queen	4,000
		King William	3,000
		Lancaster	12,000
		Mathews	10,000
		Middlesex	11,000
		New Kent	< 1,000
		Newport News	179,000
		Norfolk City	229,000
		Northampton	14,000
		Northumberland	13,000
		Poquoson City	12,000
		Portsmouth	102,000
		Richmond	7,000
		Suffolk City	78,000
		Surry	2,000
		Virginia Beach	436,000
		Westmoreland	6,000
		Williamsburg	12,000
		York	62,000
Virginia	1,711,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Population Model

Generated By:
Siemsen, LRL 1100 EDT 09/17/2007

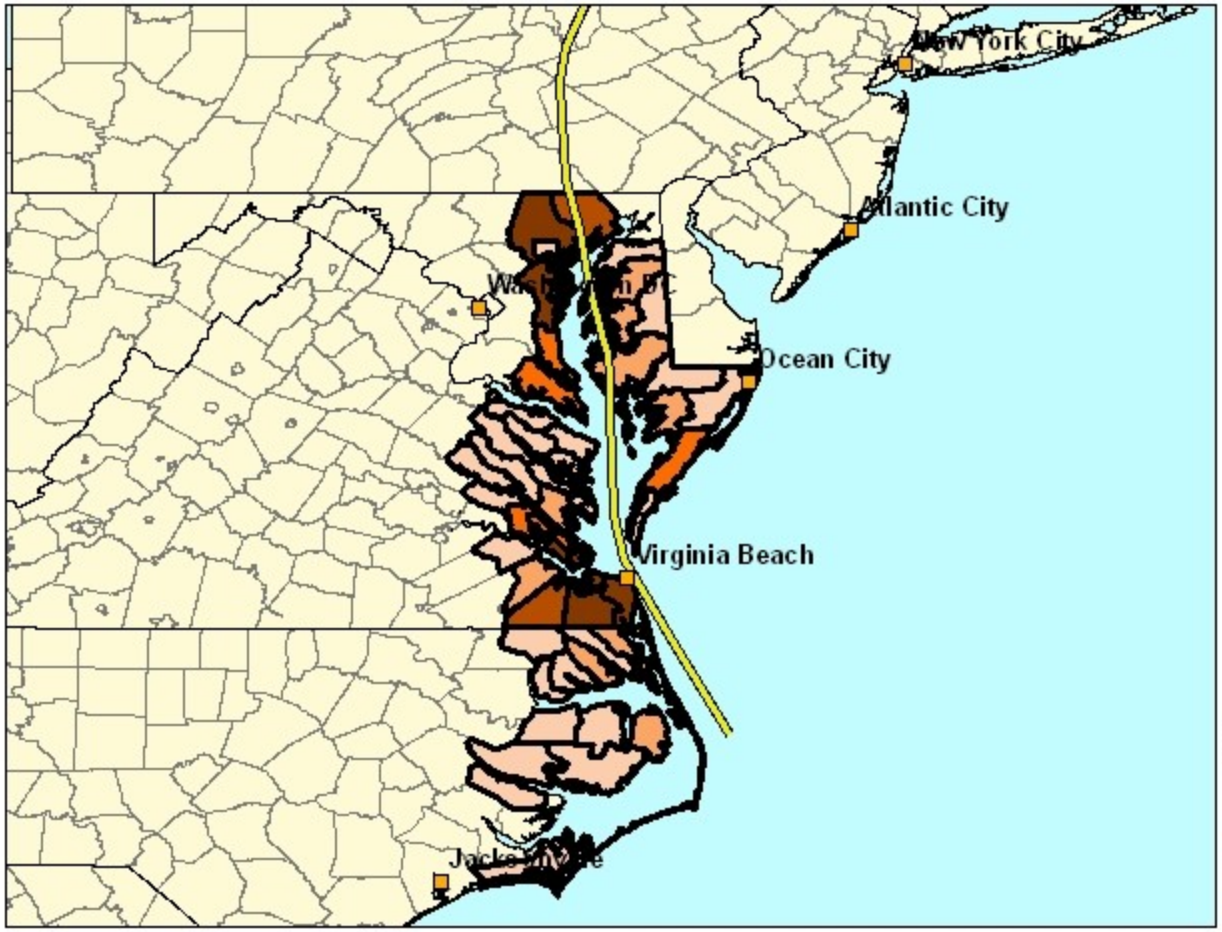
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Households Model

Landfall Plus About **12** Hours

For Official Use Only!



Post Landfall Households Model Results

Virginia - 636,000
Maryland - 283,000
North Carolina - 64,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC (1030 EDT 09/17/2007) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Households Model	
Generated By: Siemsen, LRL 1100 EDT 09/17/2007	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 13

US Army Corps of Engineers

Hurricane Md#3 Households Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Households per State	County	Households per County
Maryland		Anne Arundel	81,000
		Baltimore	72,000
		Baltimore City	< 1,000
		Calvert	24,000
		Caroline	< 1,000
		Dorchester	10,000
		Harford	26,000
		Kent	3,000
		Queen Annes	12,000
		Somerset	9,000
		St Marys	24,000
		Talbot	14,000
		Wicomico	3,000
		Worcester	5,000
Maryland	283,000		
North Carolina		Beaufort	< 1,000
		Camden	4,000
		Carteret	< 1,000
		Chowan	5,000
		Currituck	10,000
		Dare	15,000
		Gates	3,000
		Hyde	2,000
		Pasquotank	15,000
		Perquimans	6,000
		Tyrrell	2,000
		Washington	2,000
North Carolina	64,000		
Virginia		Accomack	16,000

State	Households per State	County	Households per County
Virginia		Chesapeake	78,000
(continued)		Essex	< 1,000
		Gloucester	15,000
		Hampton City	54,000
		Isle Of Wight	11,000
		James City	17,000
		King And Queen	2,000
		King William	< 1,000
		Lancaster	5,000
		Mathews	4,000
		Middlesex	5,000
		New Kent	< 1,000
		Newport News	69,000
		Norfolk City	85,000
		Northampton	6,000
		Northumberland	6,000
		Poquoson City	5,000
		Portsmouth	39,000
		Richmond	2,000
		Suffolk City	29,000
		Surry	< 1,000
		Virginia Beach	159,000
		Westmoreland	3,000
		Williamsburg	4,000
		York	22,000
Virginia	636,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

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or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Households Model

Generated By:
Siemsen, LRL 1100 EDT 09/17/2007

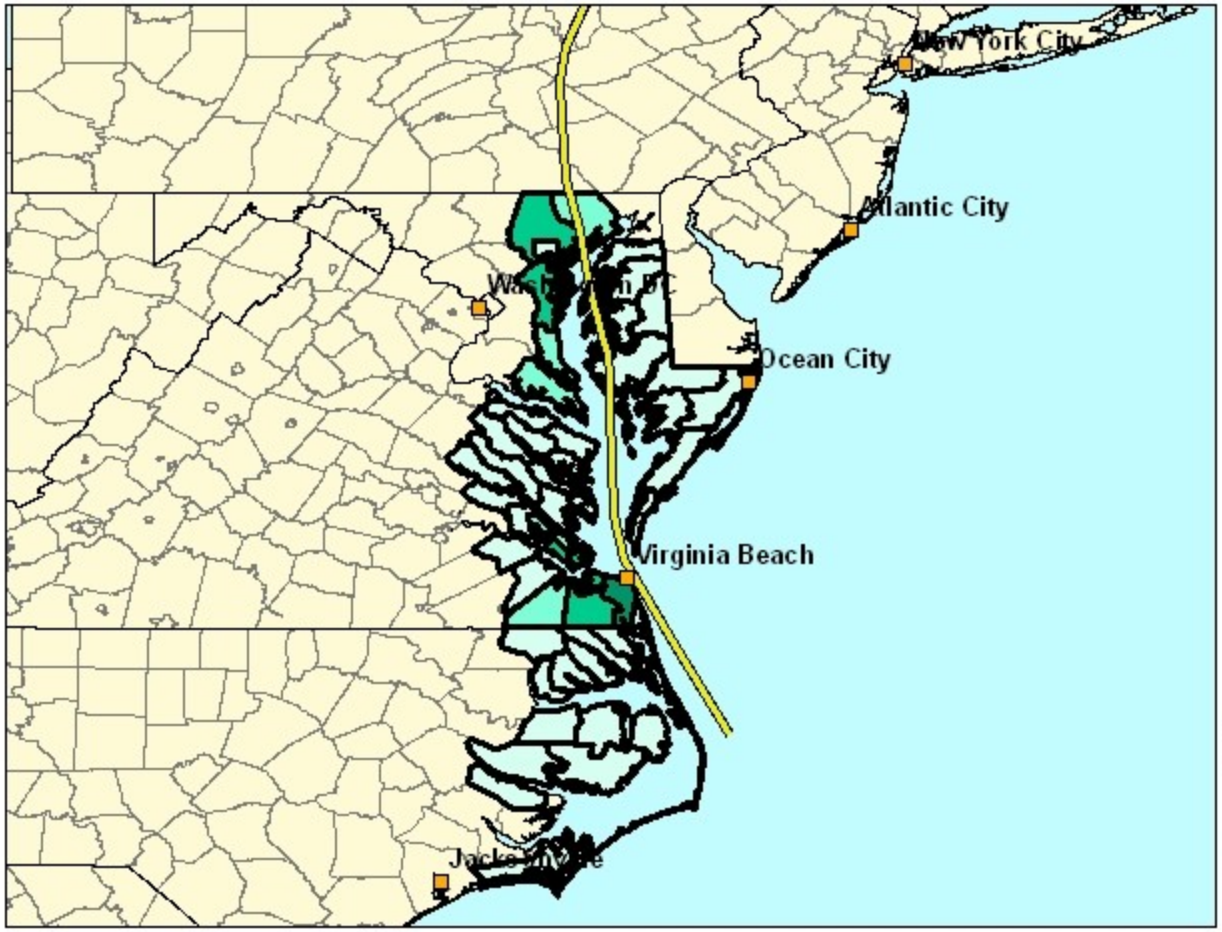
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Commodities Model

Landfall Plus About **12** Hours

For Official Use Only!



Post Landfall Ice/Water Model Results

Day One / Day Two / Day Three
VA – 38/76/151 Truckloads
MD – 17/34/67 Truckloads
NC – 5/9/18 Truckloads

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC ***(1030 EDT 09/17/2007)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Commodities Model	
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Sources: HURREVAC LRL-DEBRIS	Page 8 of 13

US Army Corps of Engineers

Hurricane Md#3 Commodities Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Truckloads per State	County	Truckloads per County
Maryland		Anne Arundel	18
		Baltimore	15
		Baltimore City	1
		Calvert	6
		Caroline	1
		Dorchester	2
		Harford	6
		Kent	1
		Queen Annes	3
		Somerset	3
		St Marys	6
		Talbot	3
		Wicomico	1
		Worcester	1
Maryland	67		
North Carolina		Beaufort	1
		Camden	1
		Carteret	1
		Chowan	1
		Currituck	2
		Dare	3
		Gates	1
		Hyde	1
		Pasquotank	4
		Perquimans	1
		Tyrrell	1
		Washington	1
North Carolina	18		
Virginia		Accomack	4

State	Truckloads per State	County	Truckloads per County
Virginia		Chesapeake	18
(continued)		Essex	1
		Gloucester	4
		Hampton City	12
		Isle Of Wight	3
		James City	4
		King And Queen	1
		King William	1
		Lancaster	1
		Mathews	1
		Middlesex	1
		New Kent	1
		Newport News	15
		Norfolk City	19
		Northampton	2
		Northumberland	2
		Poquoson City	1
		Portsmouth	9
		Richmond	1
		Suffolk City	7
		Surry	1
		Virginia Beach	35
		Westmoreland	1
		Williamsburg	1
		York	5
Virginia	151		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Commodities Model

Generated By:
Siemsen, LRL 1100 EDT 09/17/2007

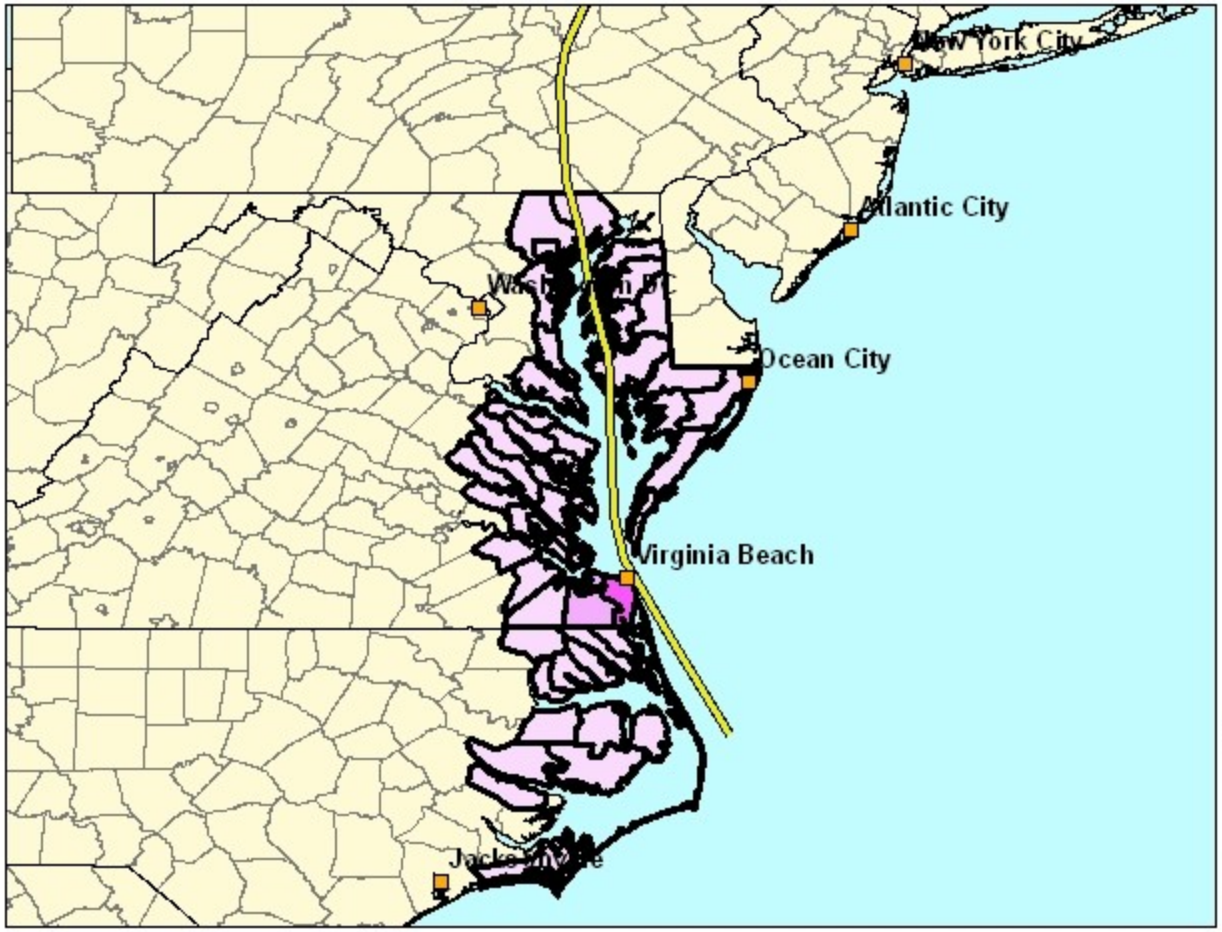
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Temporary Housing Model

Landfall Plus About 12 Hours

For Official Use Only!



Post Landfall Temporary Housing Model Results

Virginia - 16,900
Maryland - 3,000
North Carolina - 1,200

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC (1030 EDT 09/17/2007) forecast. Temporary housing is based on 1% in CAT 1, 3% in CAT 2 and 5% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Housing Model	
Generated By: Siemsen, LRL 1100 EDT 09/17/2007	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 13

US Army Corps of Engineers

Hurricane Md#3 Temporary Housing Model

Landfall Plus About 12 Hours

For Official Use Only!

State	House Units per State	County	House Units per County
Maryland		Anne Arundel	900
		Baltimore	800
		Baltimore City	< 100
		Calvert	300
		Caroline	< 100
		Dorchester	< 100
		Harford	300
		Kent	< 100
		Queen Annes	200
		Somerset	< 100
		St Marys	300
		Talbot	200
		Wicomico	< 100
		Worcester	< 100
Maryland	3,000		
North Carolina		Beaufort	< 100
		Camden	< 100
		Carteret	< 100
		Chowan	< 100
		Currituck	300
		Dare	500
		Gates	< 100
		Hyde	< 100
		Pasquotank	400
		Perquimans	< 100
		Tyrrell	< 100
		Washington	< 100
North Carolina	1,200		
Virginia		Accomack	400

State	House Units per State	County	House Units per County
Virginia		Chesapeake	2,300
(continued)		Essex	< 100
		Gloucester	200
		Hampton City	1,500
		Isle Of Wight	200
		James City	200
		King And Queen	< 100
		King William	< 100
		Lancaster	200
		Mathews	200
		Middlesex	< 100
		New Kent	< 100
		Newport News	1,000
		Norfolk City	2,600
		Northampton	200
		Northumberland	200
		Poquoson City	200
		Portsmouth	1,200
		Richmond	< 100
		Suffolk City	400
		Surry	< 100
		Virginia Beach	5,500
		Westmoreland	< 100
		Williamsburg	< 100
		York	400
Virginia	16,900		

Temporary housing is based on 1% in CAT 1, 3% in CAT 2 and 5% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Housing Model

Generated By:
Siemsen, LRL 1100 EDT 09/17/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Md#3 Temporary Roofing Model

Landfall Plus About **12** Hours

For Official Use Only!

Post Landfall Temporary Roofing Model Results

Virginia - 28,100
Maryland - 5,800
North Carolina - 2,300

Model results per County on following page

This model is based on a Category 3 storm making landfall near Hoopersville, MD.

Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Hoopersville, MD. These projections are based on information from the NHC (1030 EDT 09/17/2007) forecast. Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 8% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Roofing Model	
Generated By: Siemsen, LRL 1100 EDT 09/17/2007	
Sources: HURREVAC LRL-DEBRIS	Page 12 of 13

US Army Corps of Engineers

Hurricane Md#3 Temporary Roofing Model

Landfall Plus About 12 Hours

For Official Use Only!

State	House Units per State	County	House Units per County
Maryland		Anne Arundel	1,700
		Baltimore	1,500
		Baltimore City	< 100
		Calvert	500
		Caroline	< 100
		Dorchester	200
		Harford	600
		Kent	< 100
		Queen Annes	300
		Somerset	200
		St Marys	500
		Talbot	300
		Wicomico	< 100
		Worcester	< 100
Maryland	5,800		
North Carolina		Beaufort	< 100
		Camden	200
		Carteret	< 100
		Chowan	< 100
		Currituck	500
		Dare	800
		Gates	< 100
		Hyde	< 100
		Pasquotank	600
		Perquimans	200
		Tyrrell	< 100
		Washington	< 100
North Carolina	2,300		
Virginia		Accomack	600

State	House Units per State	County	House Units per County
Virginia		Chesapeake	3,800
(continued)		Essex	< 100
		Gloucester	400
		Hampton City	2,600
		Isle Of Wight	300
		James City	400
		King And Queen	< 100
		King William	< 100
		Lancaster	300
		Mathews	200
		Middlesex	200
		New Kent	< 100
		Newport News	1,700
		Norfolk City	4,300
		Northampton	300
		Northumberland	300
		Poquoson City	300
		Portsmouth	2,000
		Richmond	< 100
		Suffolk City	700
		Surry	< 100
		Virginia Beach	9,100
		Westmoreland	< 100
		Williamsburg	< 100
		York	600
Virginia	28,100		

Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 8% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Md#3 Roofing Model

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Siemsen, LRL 1100 EDT 09/17/2007

Sources:
HURREVAC
LRL-DEBRIS